Hardycam
Video Solutions

AUTO TRACKING
HIGH SPEED DOME CAMERA
USER'S MANUAL

Contents

Chapter1 Precautions

1.Transportation Security
No heavy stress, violent vibration or water splash are allowed during transportation, storage. The unit should be transported in separated packing. In shipments of distributor and delivery of maintenance, any damages caused by integral packing are not covered by warranty.

2. Installation
Avoid heavy stress and violent vibration during installation. Don't touch the dome cover directly by hand. When connecting the power source, please follow all electric safety standards and only use the power supply designated for this device. Keep the video and control signal in a decent distance from high voltage devices and cable. Don't apply power to the dome before finishing the installation.

3.Dismantlement
Please don't dismantle the devices in the dome body. Only the professional personnel authorized can operate the maintenance.

4. Internal Environment
Keep metal and inflammable material away from dome body to avoid fire, short circuit and damage. Please prevent all liquids material from entering the dome. If occur this, please shut down the power and pull out the plug. Then inform the technical personnel immediately.

5. Electrical Safety
The video image would be interfered when the dome is installed near television, radio transmitter, voltage changer and audio amplifier.

6. Camera Protection
Avoid shooting very bright objects directly into the camera's CCD (such as the sun or light fittings).

7. Cleaning Method
Please don't use abrasive and violent detergent to clean the dome. Please choose dry fabric and neutral detergent. Use lens paper to clean the lens.

Chapter2 Features

2.1 Built-in Decoder

● **Support auto tracking function, support area setting valid tracking area**
● **Support alarm function of cross line detection**
● **Support alarm function of object leave over detection**
● **Support alarm function of object loss detection**
● **Power-off protection, no data loss**
● **220 programmable presets**
● **8 cruising tracks, each cruising track has 32 preset positions**
● **4 pattern tours, each one with 180s memory**
● **RS-485 bus**
● **8 groups of auto scan, the left and right boundary and scan speed can be set**
● **Pelco_P and Pelco_D compatible**
● **6 alarm inputs and 2 outputs**
● **Message display function, lens coordinate value, temperature and alarm information can be showed**
● **Guard location, the dome can operate preset, auto scan, cruising and pattern tours functions after a short pause**
● **Alarm triggering, the alarm can trigger preset, auto scan, cruising and pattern tours functions**

2.2 Integrated Universal Speed Change Rotator

● **Delicate stepping motor, stable, sensitive and accurate**
● **360°continuous pan without blind area**
● **Stepless speed change, auto zoom/speed matching**
● **Auto overturn function**
● **Manual speed: Pan: 0.01°- 180°/S, Tilt: 0.01°- 120°/S**
● **Presets calling speed: 500°/S**

2.3 Built-in High Definition Day/Night Camera

● **Auto iris, auto back light compensation**
● **Auto/manual white balance**
● **Auto/manual focus**
● **Auto/manual brightness control**
● **480TV line**
● **Multiple kinds of camera for options**

2.4 All-weather Outdoor Design

● **Built-in heater**
● **Built-in fan, can operate in 60℃**
● **High Die-cast Aluminum Construction**
● **IP66 water proof**
● **3000V lightning and surge current proof**

Chapter3 Technical Data

3.1 Technical Parameters of the High-speed Dome

Model	HC-S236HEW High Speed Dome
Power Supply	AC24V/2.5A
Operating Temperature	-35 °C—60°C
Operating moisture	< 95%
Power Consumption	50W
Communication	RS-485 bus,
Communication transmission speed	2400/4800/9600BPS
Protocols	Pelco-D, Pelco-P Compatible
Pan Rotation	0.01°-180° /s
Tilt Rotation	0.01° -120° /s
Pan/Tilt Accuracy	+/- 0.07°
Preset Speed	500° /s
Pan Angle	360° Continuously
Tilt Angle	90°
Size	364 x 350 x 202mm
Weight	5.6kg
Preset Positions	220
Auto Scan	8 Groups
Cruise Track	8 Groups
Cruise Points Qty per cruise group	32 Preset Positions
Pattern Tours	4 Groups
Alarm	6 alarm inputs and 2 outputs
Privacy Zone	8 zones
Protection	IP66 water proof/3000V lightning proof
Fan, Heater	Fan and heater auto-starts 24VAC

Chapter4 Installation Guide

4.1 Installation Preparation

Video Coaxial Cables

Mode	Max Distance
RG59/U	750ft(229m)
RG6/U	1,000ft(305m)
RG11/U	1,500ft(457m)

4.2 Structure
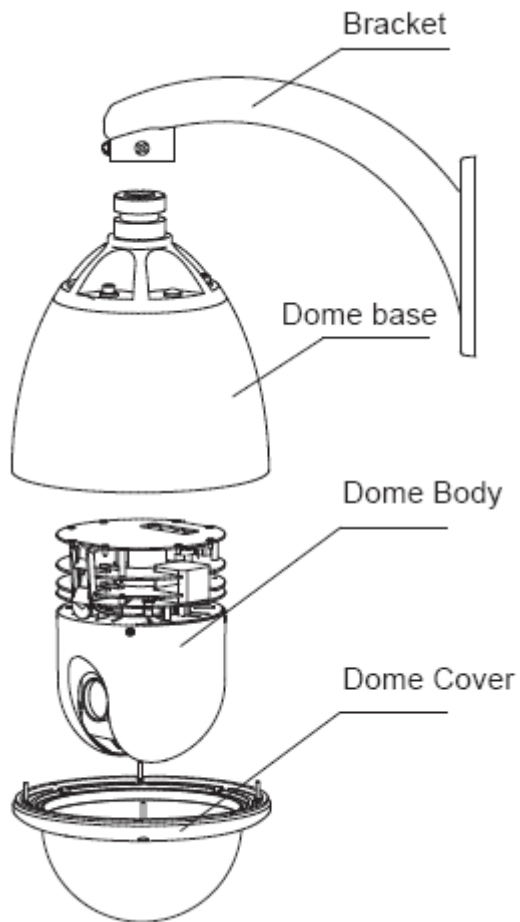
4.3 Installation Size
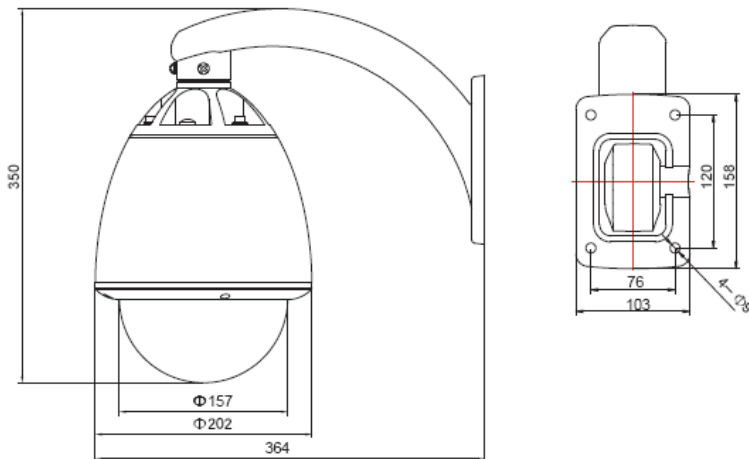
4.4 Installation Procedures

*Notice: The wall must be thick enough to install the expansion screws and can bear 4 times the weight of the dome camera itself.
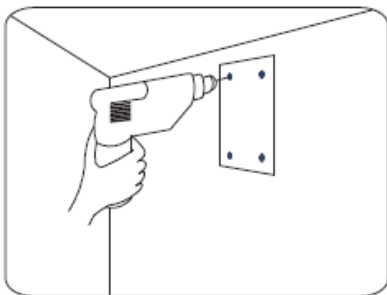
(1) Bore 4 holes by using templates included on the wall.
(2) Mount 4 expansion screws into the holes.
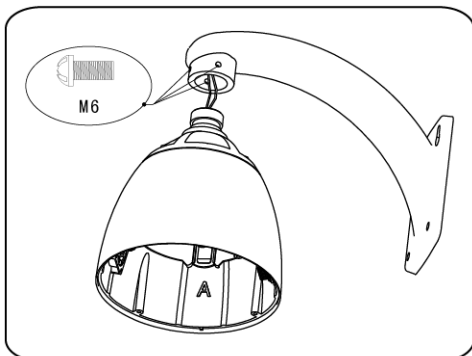
(3) Put the cables through the bracket. Fix the dome base and the bracket with M6 screws

(4) Use M 8 screw-caps and shims to fix the bracket on the wall.
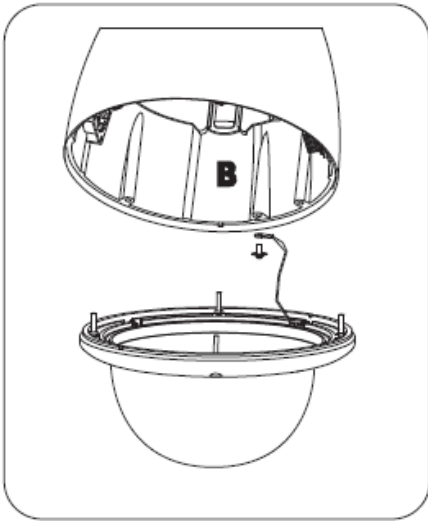
(5) Attach the dome cover to the dome base with rope.
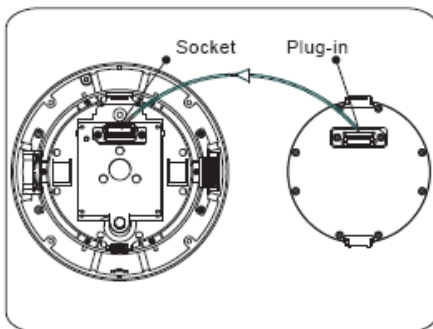
(6) Set the dome address, system baud rate and protocol by configuring DIP switches SW1 and SW3 located on the side of dome body. The Plug-in on the dome body must be seated rightly with the socket on the dome base.
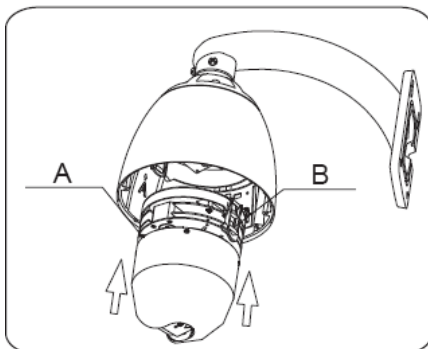
(7) To lock the dome body to the dome base, line up the A and B tabs on the dome body with the A and B label on the dome base. Push in on the tabs. Insert one side and then the other side. Continue pushing one the ends of the tabs until both sides click into place. Make sure the plug-in on the dome body is fully locked by the socket on the dome base. Then press the dome

body lightly and check if the dome body is fully locked to avoid shedding and abrasion with the dome cover.
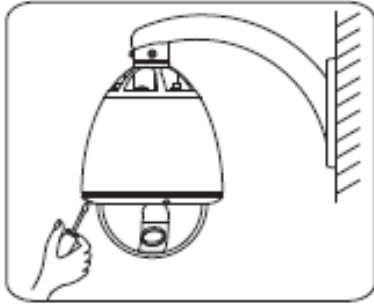
(8) Fix the dome cover with screws.

(9)Cable Connection:
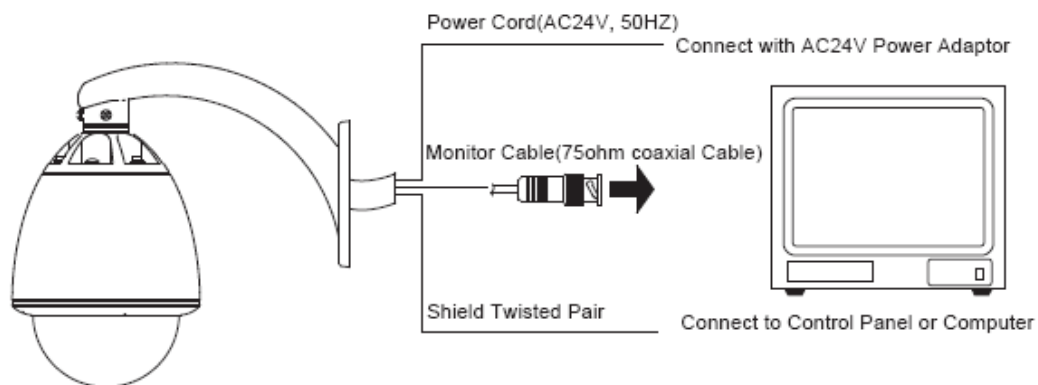
Chapter5 Settings

5.1 Interface
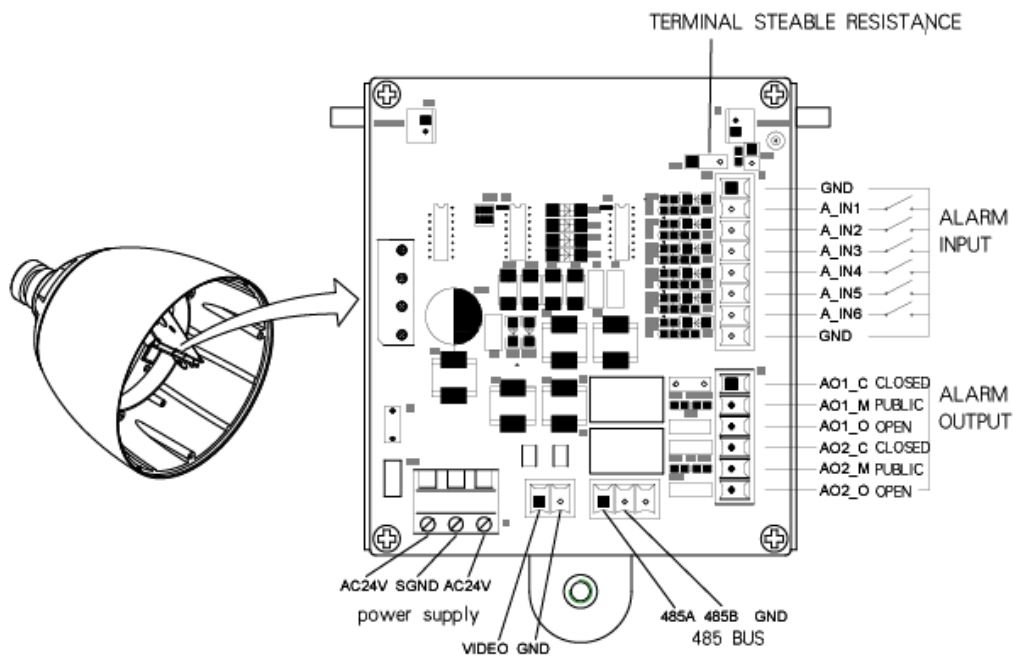
5.2 Dome Address, Transmission Speed, Protocol Setting

Before the dome is installed, the communication protocol, baud rate and dome address, should be confirmed. Set the DIP switch, keeping the setting consistent with the control system. The relative DIP switch site and connecting wires are diagramed below for reference.
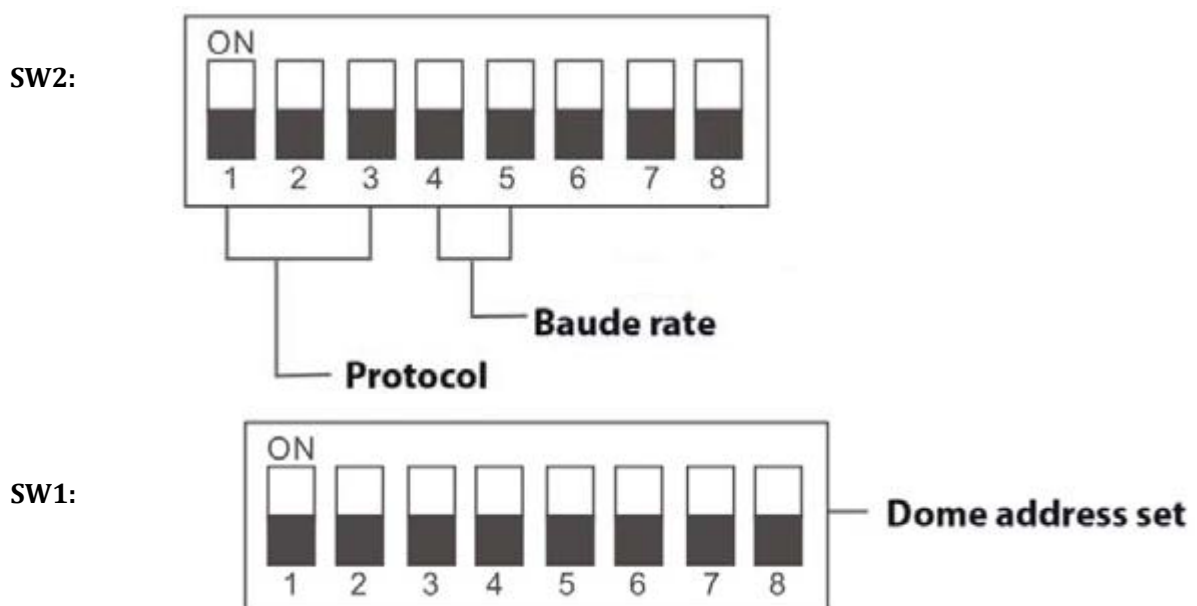
*Notice: "1" means "on" status and "0" means "off" status.

Protocol Setting

Protocols	Bit 1	Bit 2	Bit 3
PELCO_P	1	0	0
PELCO_D	0	1	0
PRESET	...	...	...

*Notice: The factory default protocol is PELCO_D

Transmission Speed Setting

Baud Rate	4 Bit	5 Bit
9600	0	0
4800	1	0
2400	0	1
PRESET	1	1

Dome Address Setting

PELCO-P:

Address	Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7	Bit 8
1	0	0	0	0	0	0	0	0
2	1	0	0	0	0	0	0	0
3	0	1	0	0	0	0	0	0
4	0	0	1	0	0	0	0	0
5	0	0	0	1	0	0	0	0
...	...	...	...	...	...	...	...	...
254	1	0	1	1	1	1	1	1
255	0	1	1	1	1	1	1	1

PELCO-D:

Address	Bit 1	Bit 2	Bit 3	Bit 4	Bit 5	Bit 6	Bit 7	Bit 8
1	1	0	0	0	0	0	0	0
2	0	1	0	0	0	0	0	0
3	1	1	0	0	0	0	0	0
4	0	0	1	0	0	0	0	0
5	1	0	1	0	0	0	0	0
...	...	...	...	...	...	...	...	...
253	1	0	1	1	1	1	1	1
254	0	1	1	1	1	1	1	1

Chapter6 The OSD Menu Setting

6.1 Operation Method of the Menu

The user can call upon preset position 95 to enter the setting interface of the OSD menu.   After entering the setting menu, a row of information will be displayed as follows (the screen can only show a single-step item of the following menu):

The operations will be implemented by commands as "Focus in/out" and "Iris on/off".
"Focus in": Up
"Focus out": Down
"Iris on": Confirm
"Iris off": Cancel

The user can also operate the OSD menu by Joystick
"Up": Move the joystick upward to select.
"Down": Move the joystick downward to select.
"Left": Move the joystick leftward to confirm.
"Right": Move the joystick rightward to cancel.

For example:

1.   In status as the previous picture showed, the user press "Iris on" to enter BACKLIGHT setting:

   BACKLIGHT   ON/OFF

2.   Press "Focus in/out" to select wanted item.

3.   And then press "Iris on" to preserve the selected items or press "Iris off" to cancel the selected item and go back to previous Menu.

4.   After all the function settings are settled down, switch to the item No.16 and press "Iris on" to quit from the menu.

6.2 OSD Menu Tree

SYSTEM INFORMATION
‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒
DOME ID : 0 1 2 3 4 5 6 7 8 9
ADDRESS : 0 0 1
BAUDRATE : 9600,N,8,1
PROTOCOL : PELCO D
TEMP : 31℃
ALARM : 000000 00
<OTHER>

BACK
EXIT

DISPLAY
‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒
DOME :OFF
PRESET :OFF
MOTION :OFF
ZONES :OFF
DATE/TIME :OFF
PAN/TILT :OFF/2SEC/5SEC/10SEC
ALARM :OFF
<DISPLAY POSITION>
BACK
EXIT

MAIN MENU
‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒
LANGUAGE: ENGLISH
<SYSTEM INFORMATION>
<DISPLAY SETUP>
<DOME SETTINGS>
<CAMERA>
<MOTION>
RESTART
FACTORY DEFAULTS

HELP
EXIT

DOME SETTINGS
‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒
<IDLE>
<ALARM>
<AUX>
<PRIVACY MASK>
<CLOCK>
<PASSWORD>
<DOME TITLE>
<OTHERS>

BACK
EXIT

MOTION
‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒
<PRESET>
<SCAN>
<SEQUENCE>
<PATTERN>
<ZONES>
<TIMING ACTION>
<AUTO TRACKING>

BACK
EXIT

CAMERA SETTING
‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒ ‒
AUTO FOCUS : OFF
DIGITAL ZOOM : OFF
BACKLIGHT : OFF
IMAGE FREEZE : OFF
ZOOM SPEED : LOW/ NORMAL/HIGH
DAY NIGHT : AUTO/BW/COCLOR
<ADVANCED>

BACK
EXIT

MOTION

A. PRESET

A1. PRESET NO.

Move the cursor to PRESET NO.，press the key IRIS ON(key on control keyboard) to enter the edition mode of preset No., move the joystick upward and downward to select number. Then press IRIS ON to confirm.

B1. TITLE

Move the cursor to TITLE and press IRIS ON to enter the edition mode of preset title.

C1.CALL

MOVE the cursor to CALL and press IRIS ON to call upon the current preset position.

D1.SET

Move the cursor to SET and press IRIS ON the enter preset setting mode. Then the sentence "PRESS IRIS ON TO CONFIRM"will appear on the screen. Move the joystick to do PTZ move and press IRIS ON to confirm the preset you want.

E1.DELETE

Move the cursor to DELETE and press IRIS ON to delete the current preset position.

B.SCAN
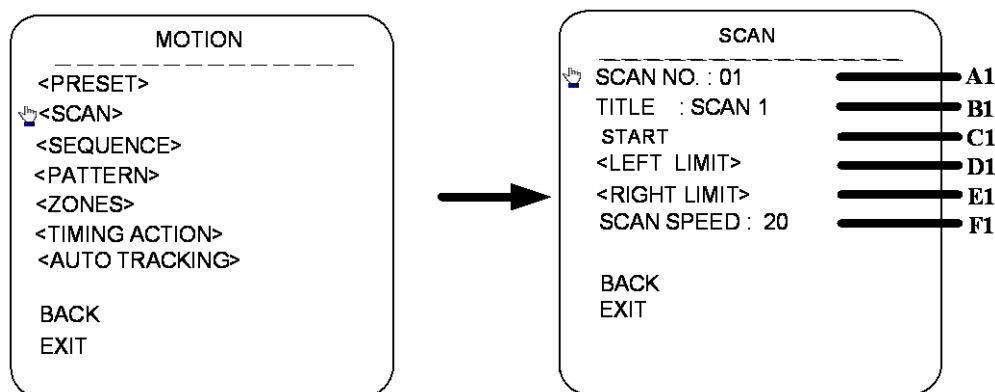
A1.SCAN NO.

Move the cursor to SCAN NO. and press the key IRIS ON(key on control keyboard) to enter the edition

mode of scan No., move the joystick upward and downward to select number. Then press IRIS ON to

confirm.

B1. TITLE

Move the cursor to TITLE and press IRIS ON to enter the edition mode of scan title.

C1.START

MOVE the cursor to START and press IRIS ON to start the current scan.

D1.<LEFT LIMIT>

Move the cursor to <LEFT LIMIT> and press IRIS ON to start setting the left limit of the current scan.

Then the sentence "PRESS IRIS ON TO CONFIRM"will appear on the screen. Move the joystick and press

IRIS ON to confirm.

E1. <RIGHT LIMIT>

Move the cursor to <RIGHT LIMIT> and press IRIS ON to start setting the right limit of the current scan.

Then the sentence "PRESS IRIS ON TO CONFIRM"will appear on the screen. Move the joystick and press

IRIS ON to confirm.

F1. SCAN SPEED

Move the cursor to SCAN SPEED and press IRIS ON to enter the edition mode of scan speed. Move the
joystick upward and downward to select a speed scale, then press IRIS ON to confirm. The speed scale
ranges from 1~30.

C.SEQUENCE

```
          MOTION                                    SEQUENCE
 _____                        _____
   <PRESET>                         ☞ SEQ NO. : 1                      ━━━━━ A1
   <SCAN>                             TITLE : SEQ 1                     ━━━━━ B1
 ☜ <SEQUENCE>              ➡         START                             ━━━━━ C1
   <PATTERN>                          <SEQUENCE SET>                    ━━━━━ D1
   <ZONES>                            DELETE                            ━━━━━ E1
   <TIMING ACTION>
   <AUTO TRACKING>

   BACK                               BACK
   EXIT                               EXIT
```

A1.SEQ NO.

Move the cursor to SEQ NO. and press the key IRIS ON(key on control keyboard) to enter the edition mode of sequence No., move the joystick upward and downward to select number. Then press IRIS ON to confirm.

B1. TITLE

Move the cursor to TITLE and press IRIS ON to enter the edition mode of sequence title.

C1.START

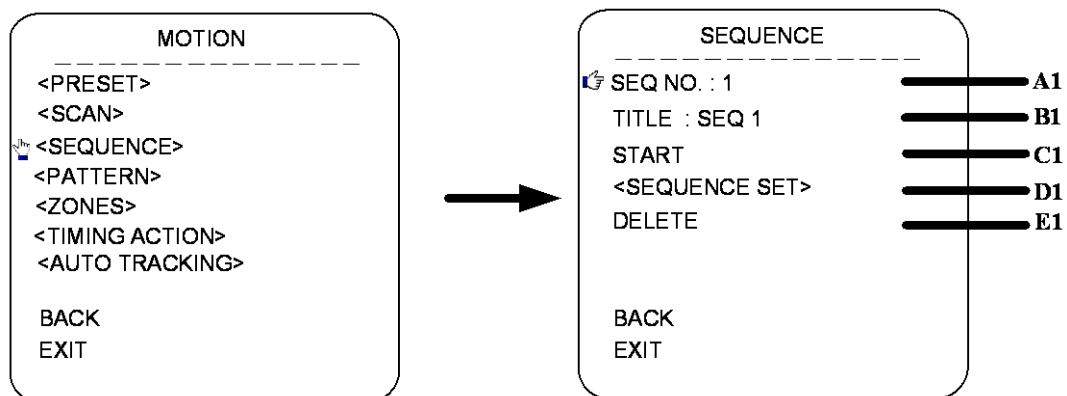MOVE the cursor to START and press IRIS ON to start the current sequence.

D1.<SEQUENCE SET>

Press IRIS ON to enter into the sequence setting

```
         SEQUENCE                                 SEQUENCE
 _____                        _____
   SEQ NO. : 1                            NO.    PRESET   INTERVAL
   TITLE : SEQ 1                        >> 0 1    0 0 2      0 3
   START                                   0 2    0 0 1      0 3
 ☞ <SEQUENCE SET>            ➡            0 3    - - -      - -
   DELETE                                  0 4    - - -      - -
                                           0 5    - - -      - -
                                           0 6    - - -      - -
                                         ☞EDIT 0 1  0 0 3      0 3   INS
   BACK                                    BACK              EXIT
   EXIT
```

Move the cursor to EDIT and press IRIS ON to enter edition mode. Move the joystick rightward and leftward to select item.

a. When the < > is on the item NO., move joystick upward and downward to select the NO.of the preset in a sequence. There are up to 32 presets in a single sequence.

b. When the < > is on the item PRESET, move the joystick upward and downward to select the preset NO. you want to add in the sequence.

c.When the < > is on the item INS, move the joystick upward and downward to select edition mode as "insert", "ok" and "delete".

d. Press IRIS OFF to quit the edition.

D. PATTERN
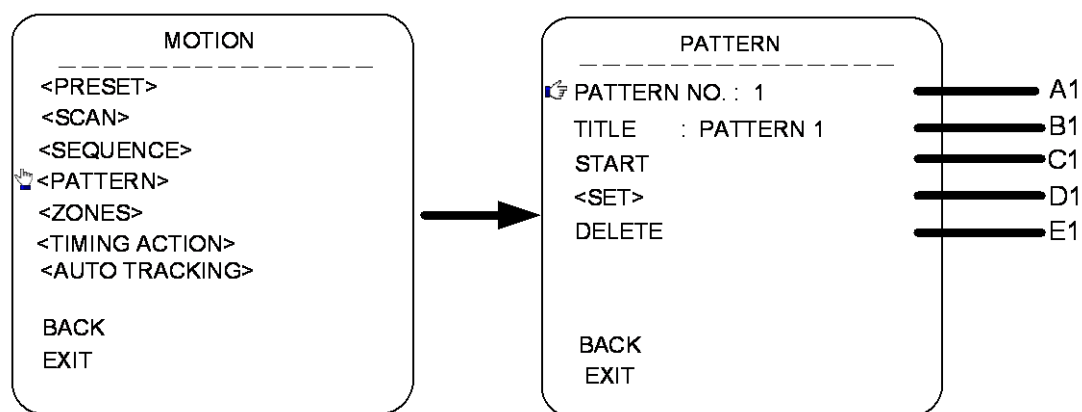
A1.PATTERN NO.

Move the cursor to PATT and press the key IRIS ON(key on control keyboard) to enter the edition mode of sequence No., move the joystick upward and downward to select number. Then press IRIS ON to confirm.
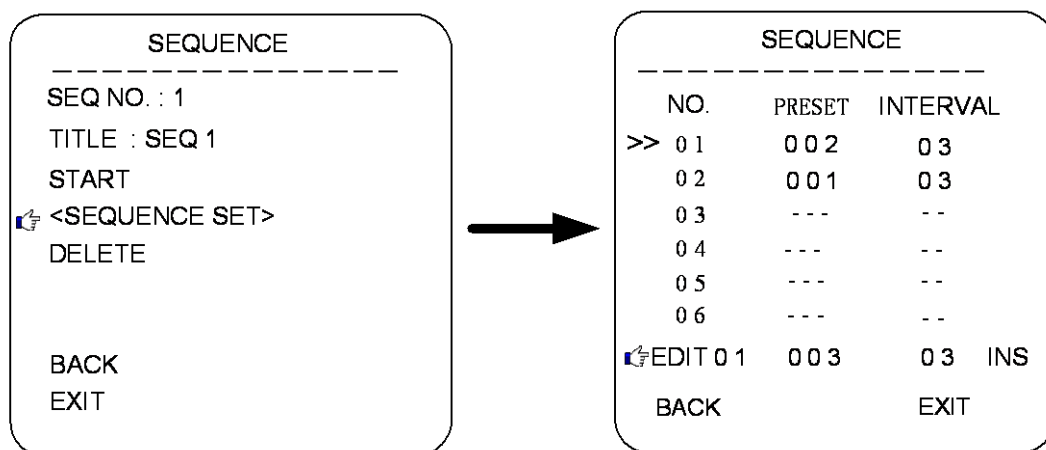
B1. TITLE

Move the cursor to TITLE and press IRIS ON to enter the edition mode of sequence title.

C1.START

MOVE the cursor to START and press IRIS ON to start the current Pattern.

D1. <SET>

Move the cursor to SET and press IRIS ON the enter pattern setting mode. Then the sentence "PRESS IRIS ON TO CONFIRM"will appear on the screen. Move the joystick to do PTZ move and press IRIS ON to confirm.

E1.DELETE

Move the cursor to DELETE and press IRIS ON to delete the current pattern.

E.<ZONES>
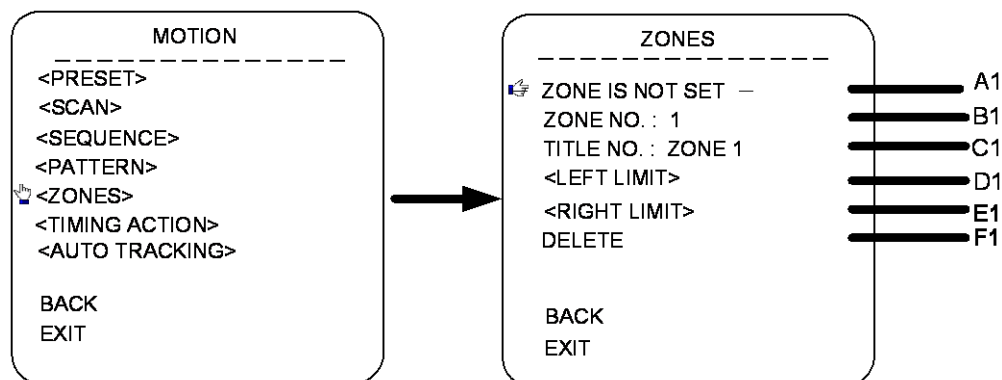
A1.ZONE INFORMATION

B1.ZONE NO.

Move the cursor to ZONE NO. and press the key IRIS ON(key on control keyboard) to enter the edition

mode of zone No., move the joystick upward and downward to select number. Then press IRIS ON to

confirm.

C1. TITLE

Move the cursor to TITLE and press IRIS ON to enter the edition mode of zone title.

D1.<LEFT LIMIT>

Move the cursor to <LEFT LIMIT> and press IRIS ON to start setting the left limit of the current zone.

Then the sentence "PRESS IRIS ON TO CONFIRM"will appear on the screen. Move the joystick and press

IRIS ON to confirm.

E1. <RIGHT LIMIT>

Move the cursor to <RIGHT LIMIT> and press IRIS ON to start setting the right limit of the current zone.

Then the sentence "PRESS IRIS ON TO CONFIRM"will appear on the screen. Move the joystick and press

IRIS ON to confirm.

F1.DELETE

Press IRIS ON to delete the current zone.
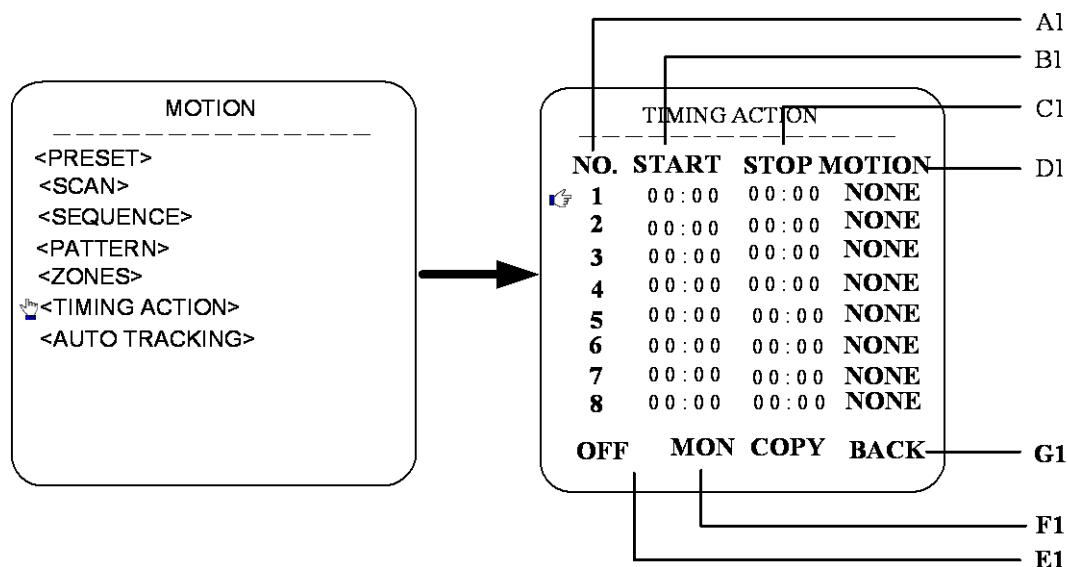
F.TIMING ACTION

A1.SHEDULE NO.

B1.START

Start time of timing action.

C1.STOP

Stop time of timing action.

D1.MOTION

Timing action modes: PRESET 1-8, SCAN 1-4, SEQUENCE 1-4, PATTERN 1-4

E1：ON/OFF

Press IRIS ON to enable or disable the timing action

F1：COPY

User can copy a schedule to other 6 days in a week.

G1. BACK

Go back to upper menu

G. AUTO TRACKING

```
     VIDEO ANALYSIS
---------------------------------------------
<AUTO TRACKING>
<CROSS ALARM>
<LOSS DETECT>
DELAY TIME:
DSP ENABLE:


BACK
EXIT
```

1. Auto tracking

Move the cursor to "AUTO TRACKING", press "iris on" key enter auto tracking parameters setting.

2. Cross Alarm

Move the cursor to "CROSS ALARM", press "iris on" key enter cross alarm parameters setting.

3. Loss Detection

Move the cursor to "LOSS DETECT", press "iris on" key enter loss detect parameters setting.

4. Manual Delay Time

This parameter means the time interval from manual ending to intelligent analysis starting, move the cursor to "DELAY TIME" , press "iris on" key enter manual delay time setting, through control joystick to set 1-20 seconds delay time.

5. DSP Video Output

Move the cursor to "DSP ENABLE", press "iris on" key enter turn on/off setting. When select "ON" and turn on the intelligent analysis function, the OSD menu of intelligent analysis function will overlay the image, and it will frame the object when detect the object. When select the "OFF", The prompt information disappear and display same as normal dome camera.

1.Auto Tracking Function

Function Overview:

It is used in auto tracking of moving object in the no man's land, such as: people, cars, animals, also can achieve the function of area tracking and alarm

Operation Instruction:

```
        VIDEO ANALYSIS                          AUTO TRACKING
------------------------------------     ------------------------------------------
👉<AUTO TRACKING >                     👉 SENSITIVITY   :  MID  ———— A
  <CROSS ALARM >                          PURSUIT SPEED :  2    ———— B
  <LOSS DETECT >                          PURSUIT SIZE  :  BIG  ———— C
  DELAY TIME:     05                      THRESHOLD 1   :  MID  ———— D
  DSP ENABLE:     OFF                      THRESHOLD 2   :  MID  ———— E
                                          <OTHERS>             ———— F
                                          ENABLE        :  OFF ———— G

  BACK                                    BACK
   EXIT                                   EXIT
```
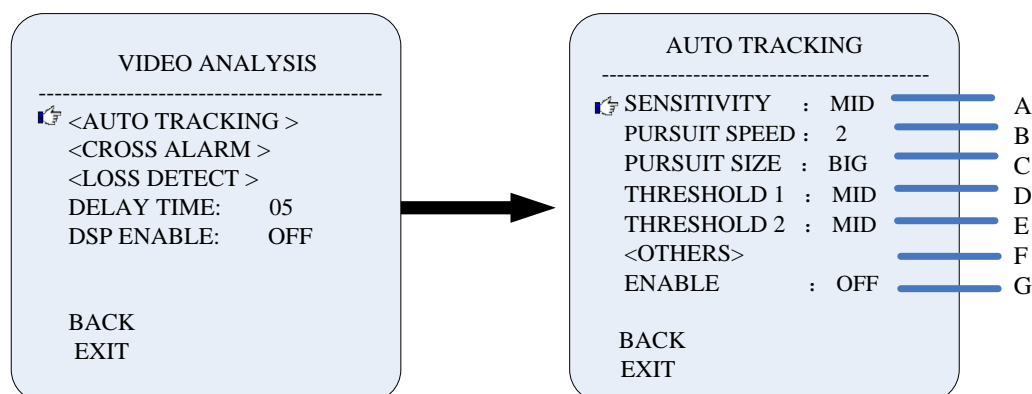
A. Tracking Sensitivity

Move the cursor to "SENSITIVITY", press "IRIS ON" to set the parameter among "HIGH""MID""LOW" and can adjust according to the current environment in the surveillance area. When there are many

interferential target (eg. leaves, flags) in the surveillance area, suggested to use the low sensitivity, and normally use the middle sensitivity.

B. Pursuit Speed Rate

This parameter's range is 1-6 optional, it correspond the dome camera rotational speed, "1" means the lowest speed, and "6" means highest speed

C. Pursuit Size

This parameter is divided into "BIG""MID""SMALL" 3 grades, when area of pursuit area is more than 300 ㎡, suggested to set "BIG"; less than 300㎡ and more than 100㎡ suggested to set "MID"; others set to "SMALL".

D. Stationary Frame Threshold

This parameter is divided into "BIG""MID""SMALL" 3 grades, support to set "MID"

E. Motion Frame Threshold

This parameter is divided into "BIG""MID""SMALL" 3 grades, support to set "MID"

F. Others Option

Move the cursor to "OTHERS", press "IRIS ON" to set the preset location and track location.

```
        AUTO TRACKING                          PURSUIT OTHERS
-----------------------------------   ---------------------------------------
  SENSITIVITY   :   MID                ☞TRACK LOCATION : <PRT1>         ━ F1
  PURSUIT SPEED :   2                    LINKAGE OUT    : OFF           ━ F2
  PURSUIT SIZE  :   BIG                  <LEFT LIMIT>                   ━ F3
  THRESHOLD 1   :   MID                  <RIGHT LIMIT>                  ━ F4
  THRESHOLD 2   :   MID                  ENABLE:   OFF                  ━ F5
☞ <OTHERS>
  ENABLE        :   OFF
                                         BACK
  BACK                                   EXIT
  EXIT
```
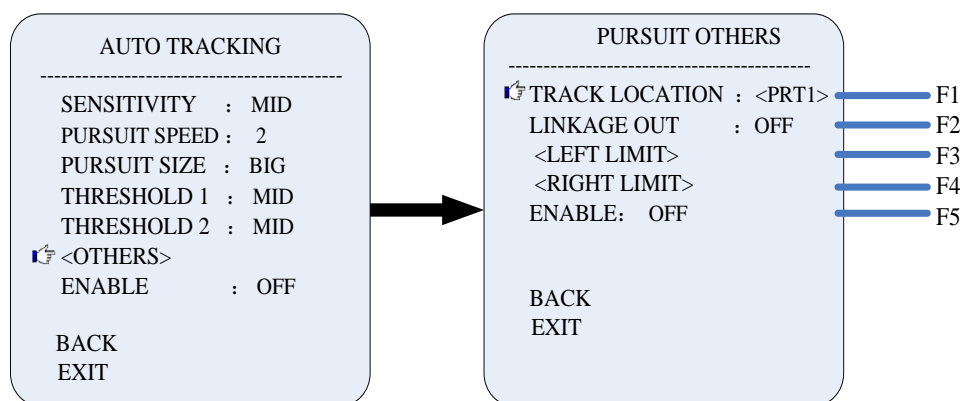
F1. Tracking the Preset Point

This parameter is optional from the preset location 1-4, after turn on the auto tracking function, the preset location area of this parameter set will be the surveillance point of auto tracking function

F2. Linkage Output

This parameter set to 4 option "ONPUT 1" "OUTPUT 2" "ALL" "OFF", When moving object is detected and turn on the tracking function, it will operate the linkage switch according to the setting, and after dome camera back to preset location, the auxiliary switch will turn off automatically.

F3. Set Tracking Area Left Boundary

When the regional tracking function turns on, this parameter is to set the area left boundary. When the moving object cross this boundary, camera will stop automatically and back to preset surveillance location

F4. Set Tracking Area Right Boundary

When the regional tracking function turns on, this parameter is to set the area right boundary. When the moving object cross this boundary, camera will stop automatically and back to preset surveillance location

F5. Region Tracking Function

This parameter is divided into "ON" "OFF", turn on/off the regional tracking function.
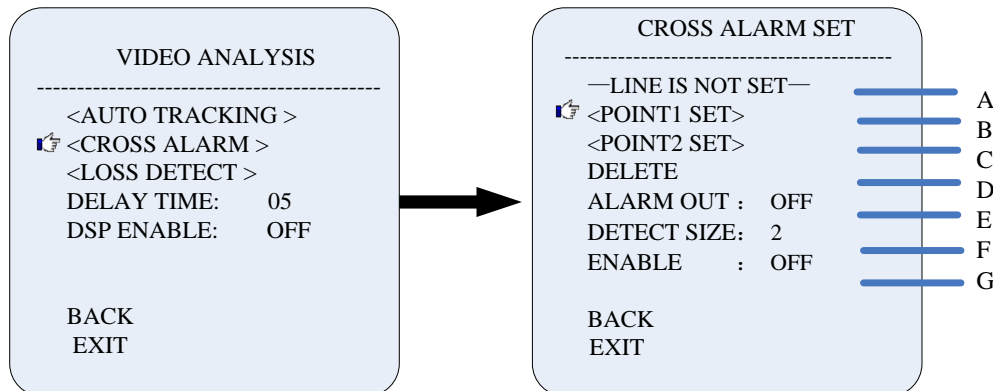
G. Tracking Function

This parameter is divided into "ON" "OFF", turn on/off the auto tracking function.

2.Cross alarm function

Function Overview:

Mainly used in monitoring alarm area , it will activate alarm when objects go across the cordon, suitable

for real-time monitoring of important occasions. .

Operation Instruction:

```
        VIDEO ANALYSIS
-----------------------------------------
    <AUTO TRACKING >
 ☞ <CROSS ALARM >
    <LOSS DETECT >
    DELAY TIME:     05
    DSP ENABLE:     OFF


    BACK
     EXIT
```

```
        CROSS ALARM SET
-----------------------------------------
      —LINE IS NOT SET—            ──── A
 ☞ <POINT1 SET>                    ──── B
    <POINT2 SET>                   ──── C
    DELETE                         ──── D
    ALARM OUT ： OFF                ──── E
    DETECT SIZE：  2               ──── F
    ENABLE      :   OFF            ──── G

    BACK
    EXIT
```

A.LINE IS NOT SET

Important information: please set the cordon before the function used and make sure the cordon use

POINT 1 as monitoring area , the cordon must be set in POINT 1.

B.POINT 1 SET

Move the cursor , choose the location of asterisk(*) to set POINT 1

C.POINT 2 SET

Move the cursor , choose the location of asterisk(*) to set POINT 2

D.DELETE

 Used to delete the set cordon.

E.ALARM OUTPUT

There are "output 1" "output 2" "all" "close" 4 options , the alarm function will be activated when

objects cross the cordon.

F.DETECT SIZE

Parameter range from 1~15, the selection is according to monitoring area size and the tracking target.

For example, if the tracking target is people, it is suggested to set 50 ㎡ as one unit, when the monitored

area size less than 50 ㎡, the parameter is 15; when the area size is between 50~100 ㎡, set the

parameter to be 14, and so forth. If the tracking target is a car, the size should be larger accordingly.

G.ENABLE

There are two options "open" and "close" for the control of this function

Note: The device need about 1 minute time to analyze the environment after enable the cross alarm function, it may give false alarm during this period. The cordon will appear in the image after this period of time.

3.LOSS DETECT

Function overview:

Apply to monitoring objects leaving and lose in a certain aera, it is suitable for the warehouse and some other important places.

Operation instruction:

```
        VIDEO ANALYSIS
   ----------------------------------------
      <AUTO TRACKING >
      <CROSS ALARM >
   ☞ <LOSS DETECT >
      DELAY TIME:      05
      DSP ENABLE:      OFF


      BACK
       EXIT
```

```
            LOSS DETECT
   -------------------------------------------
   ☞ DETECT SIZE：   2          ——— A
      ALARM OUT :   OFF         ——— B
      ENABLE    :   OFF         ——— C

      BACK
      EXIT
```

A. DETECT SIZE

There are "Small" "Medium" "Big" 3 parameters optional , according to the monitored area size and tracking target.

B.ALARM OUT

There are "output 1" "output 2" "all" "close" 4 options , when target left or lost, it will activate the alarm.

C.ENABLE

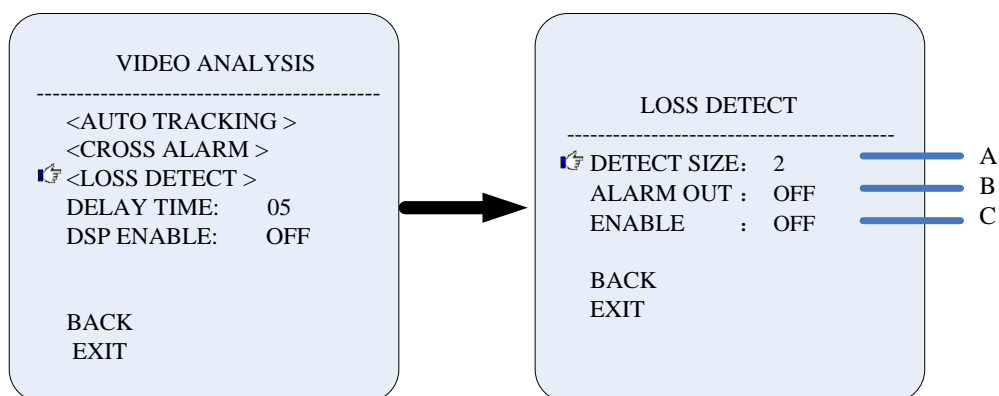"OPEN" and "CLOSE" to turn on/off the LOSS DETECT function.

Note : The device need about 1 minute time to analyze the environment after enable the loss detect function, it may give false alarm during this period of time.

DOME SETTING
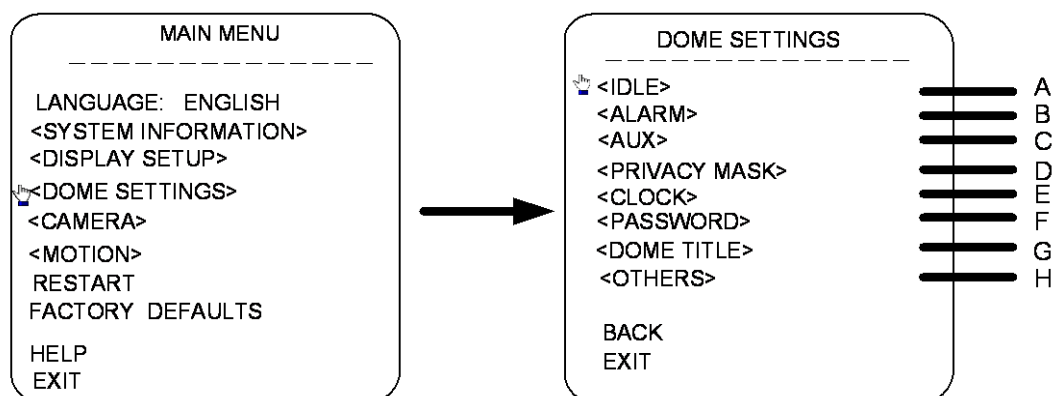
A. IDLE ACTION
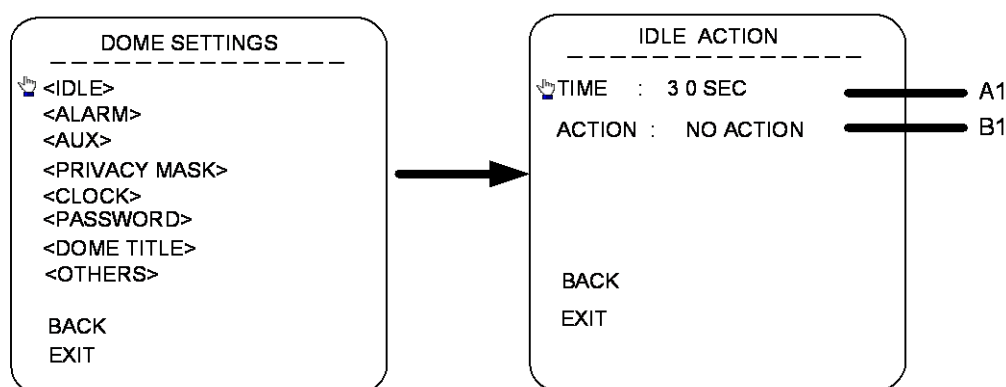
A1：IDLE ACTION

Move the cursor to TIME, press IRIS ON to enter the edition mode of idle action starting time. The time could be 30seconds, 2 minutes, 5 minutes or 10 minutes. Press IRIS ON to confirm.

B1： ACTION

Move the cursor to ACTION and press the key IRIS ON to edit the idle action type like preset, scan, sequence or none.

B．ALARM

```
        DOME SETTINGS                        ALARM SETTING
     _ _ _ _ _ _ _ _ _ _                _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
   <IDLE>                          ALARM NO.   : 1                          A1
   <ALARM>                          INPUT STATE  : CLOSE                    B1
   <AUX>                            ALARM MODE : OFF                        C1
   <PRIVACY MASK>         →         TRIGGER ACTION :  NONE                  D1
   <CLOCK>                          ALARM OUT   :  OFF/OUT1/OUT2/ALL        E1
   <PASSWORD>                       CANCEL TIME  :  10SEC                   F1
   <DOME TITLE>                     START TIME   : 0 0 : 0 0                G1
   <OTHERS>                         STOP TIME    : 0 0 : 0 0                H1

   BACK                            BACK
   EXIT                            EXIT
```

A1. ALARM NO.

Move the cursor to ALARM NO., press IRIS ON to select the channel No. of alarm input. When the channel

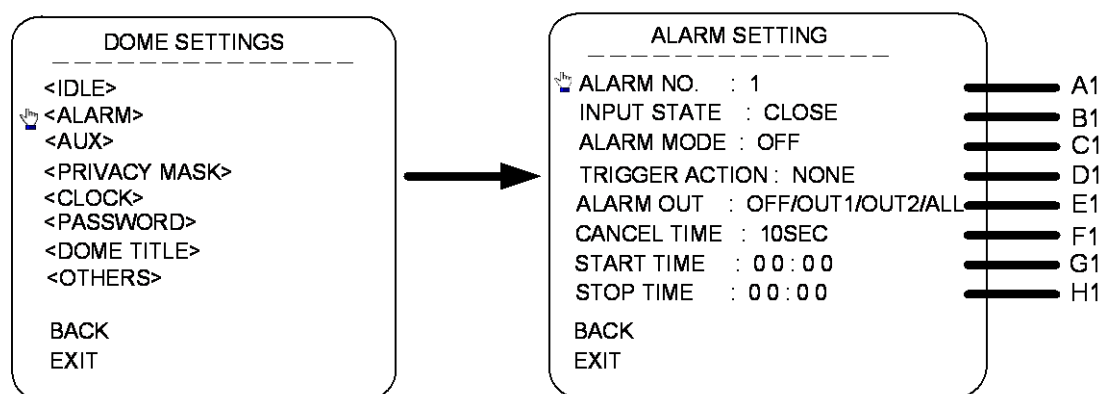No. has been changed, the system will update all the relative settings and displayed data.

B1. INPUT STATE

Move the cursor to INPUT STATE, press IRIS ON to set the current state of alarm input as open or close.

C1. ALARM MODE

Move the cursor on ALARM MODE to set the current mode of alarm as ON, OFF and AUTO.

D1. TRIGGER ACTION

Move the cursor on TRIGGER ACTION to set the action type triggered by alarm, such as presets,

sequence, pattern and scan.

E1. ALARM OUT

Move the cursor to ALARM OUT to select the alarm output channel.

F1. CANCEL TIME

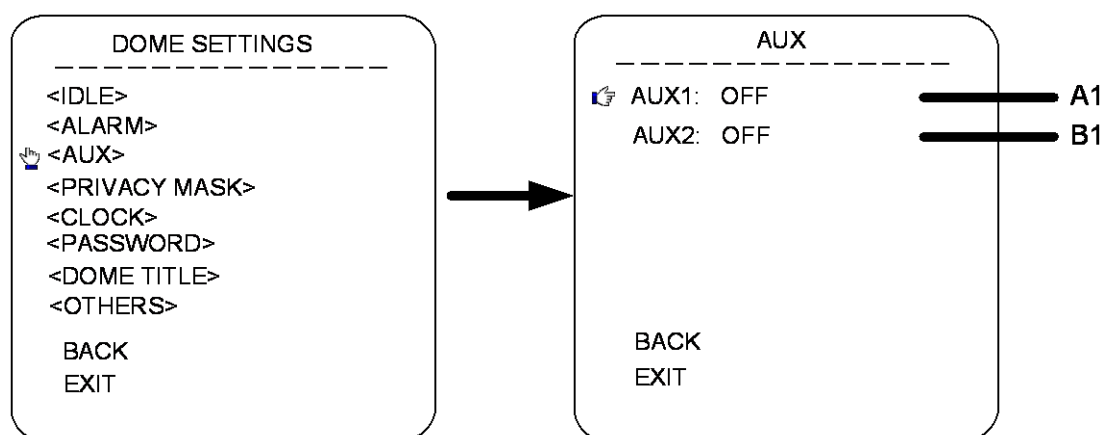Move the cursor to CANCEL TIME to set the duration of the alarm state.

G1. START TIME

START TIME means the time for opening the alarm when the alarm mode is auto.
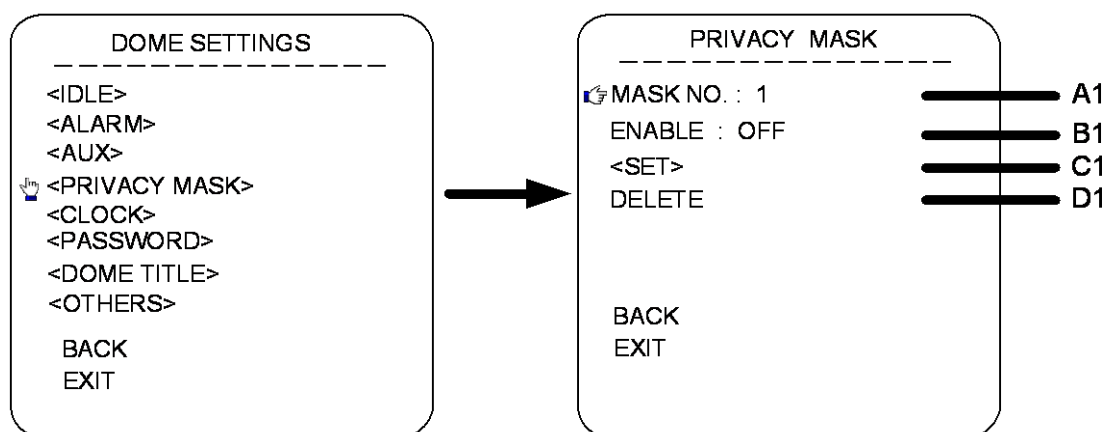
H1. STOP TIME

STOP TIME means the time for closing the alarm when the alarm mode is auto.

C. AUX

```
        DOME SETTINGS                          AUX
     _ _ _ _ _ _ _ _ _ _ _             _ _ _ _ _ _ _ _ _ _ _ _ _
     <IDLE>                         ☞ AUX1:  OFF              ━━━━━ A1
     <ALARM>                           AUX2:  OFF             ━━━━━ B1
   ✋ <AUX>
     <PRIVACY MASK>
     <CLOCK>
     <PASSWORD>
     <DOME TITLE>
     <OTHERS>

       BACK                              BACK
       EXIT                              EXIT
```

Move the cursor to open or close the AUX

D. PRIVACY MASK

```
        DOME SETTINGS                        PRIVACY  MASK
     _ _ _ _ _ _ _ _ _ _ _ _ _         _ _ _ _ _ _ _ _ _ _ _ _ _ _
     <IDLE>                          ☞ MASK NO. :  1          ━━━━━ A1
     <ALARM>                            ENABLE :  OFF         ━━━━━ B1
     <AUX>                             <SET>                  ━━━━━ C1
   ✋ <PRIVACY MASK>                     DELETE                ━━━━━ D1
     <CLOCK>
     <PASSWORD>
     <DOME TITLE>
     <OTHERS>

       BACK                              BACK
       EXIT                              EXIT
```

A1. MASK NO.

Move the cursor to MASK NO. to set the NO. of privacy mask zone.

B1.ENABLE

Move the cursor to ENABLE to enable or disable the privacy mask zone.

C1.<SET>

.Move the cursor to <SET> and press IRIS ON to enter the edition mode of privacy mask zone. Then the

sentence "PRESS IRIS ON TO CONFIRM" will be displayed on the monitor. Use joystick to move the dome

to the area you want to cover and press IRIS ON to confirm. There will be a privacy zone in the middle of

the monitor. Move joystick upward, downward, leftward and rightward to adjust the size of privacy zone.

D1. DELETE

Press IRIS ON to delete the current privacy zone.

E. CLOCK
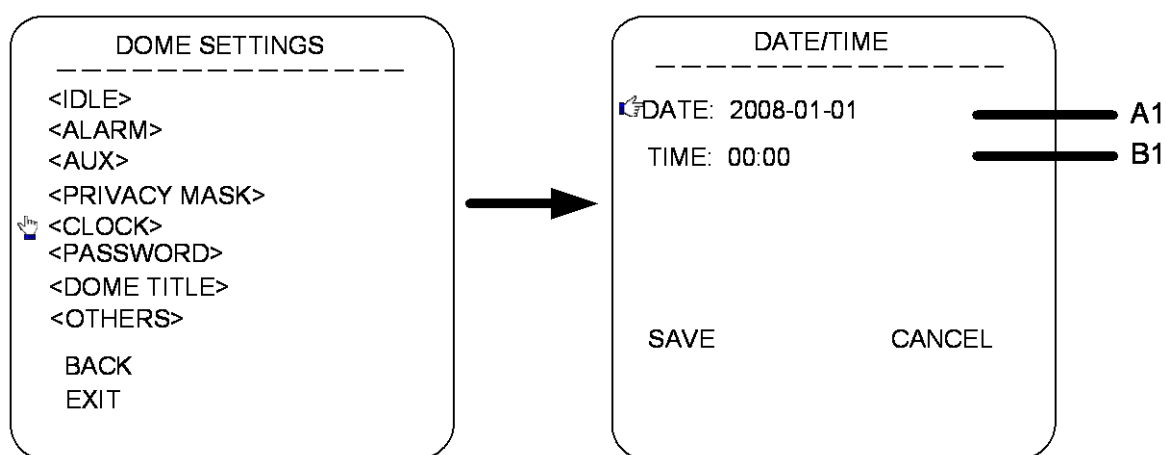
A1：DATE

Move the joystick leftward and rightward to select year, month and day. Move the joystick upward and downward to select the number.

B1：TIME

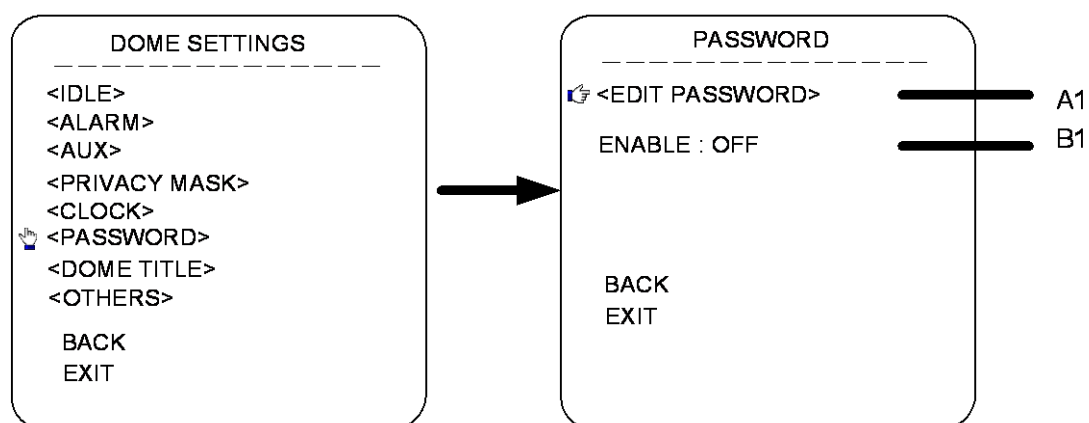Move the joystick leftward and rightward to select hour and minute. Move the joystick upward and downward to select the number.
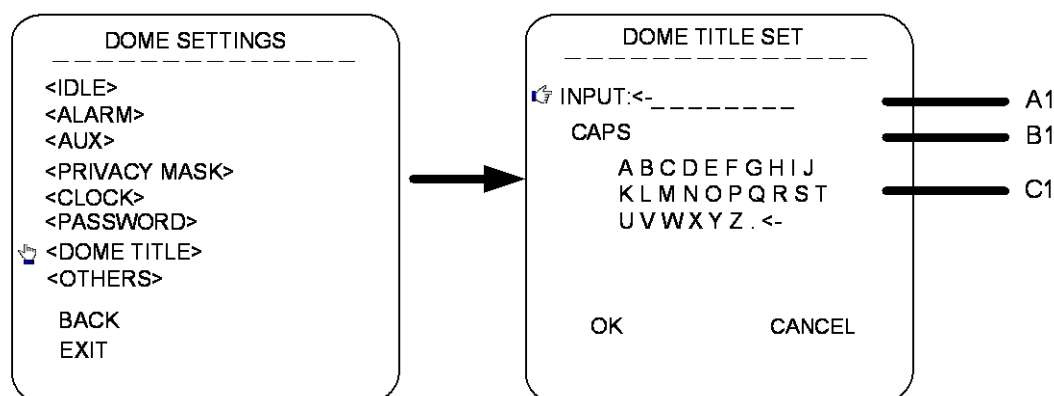
F. PASSWORD

A1.EDIT PASSWORD

The factory default password is 111111. The old password is needed before setting a new one.

B1.ENABLE

Enable or disable the password protection for OSD menu

G. DOME TITLE

```
      DOME SETTINGS                    DOME TITLE SET
   ─ ─ ─ ─ ─ ─ ─ ─ ─ ─            ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─
   <IDLE>                        ☞ INPUT:<-_ _ _ _ _ _ _ _            ━━━ A1
   <ALARM>                          CAPS                              ━━━ B1
   <AUX>
   <PRIVACY MASK>                    A B C D E F G H I J
   <CLOCK>                           K L M N O P Q R S T              ━━━ C1
   <PASSWORD>                        U V W X Y Z . <-
  ✍ <DOME TITLE>
   <OTHERS>

    BACK                              OK            CANCEL
    EXIT
```
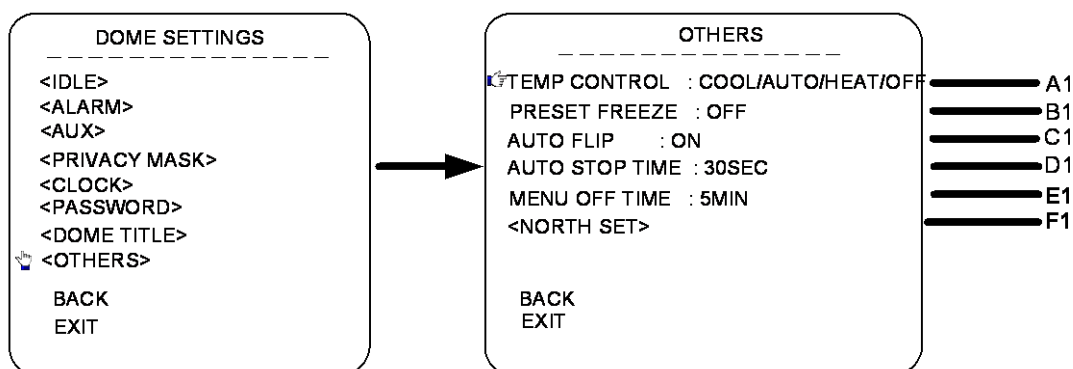
A1. INPUT

Move the cursor to INPUT and press IRIS ON to enter the title edition mode.

B1. Move the cursor to CAPS. Press IRIS ON and move the joystick upward and downward to select capital and small letters.

C1. ALPHABET

Move the cursor to alphabet and press IRIS ON to select letters.

H. OTHERS

```
      DOME SETTINGS                        OTHERS
   ─ ─ ─ ─ ─ ─ ─ ─ ─ ─          ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─
   <IDLE>                       ☞TEMP CONTROL  : COOL/AUTO/HEAT/OFF   ━━━ A1
   <ALARM>                        PRESET FREEZE  : OFF                ━━━ B1
   <AUX>                         AUTO FLIP      : ON                  ━━━ C1
   <PRIVACY MASK>                AUTO STOP TIME  : 30SEC              ━━━ D1
   <CLOCK>                       MENU OFF TIME   : 5MIN               ━━━ E1
   <PASSWORD>                    <NORTH SET>                          ━━━ F1
   <DOME TITLE>
  ✍ <OTHERS>
    BACK                          BACK
    EXIT                          EXIT
```

A1：TEMP CONTROL

Move the cursor to TEMP CONTROL and press IRIS ON to select the temperature control mode as:

COOL/AUTO/HEAT/OFF

B1：PRESET FREEZE

Move the cursor to PRESET FREEZE and press IRIS ON to set preset freeze function. When the dome is

shifting from one preset to another, the image on the monitor will not change until the preset calling is

done.

C1：AUTO FLIP

Move the cursor to AUTO FLIP and press IRIS ON to enable or disable auto flip function.

D1.AUTO STOP TIME

The dome will stop PTZ move after a certain period when the stop code is not received by dome. The period could be 5/15/30/60 seconds.
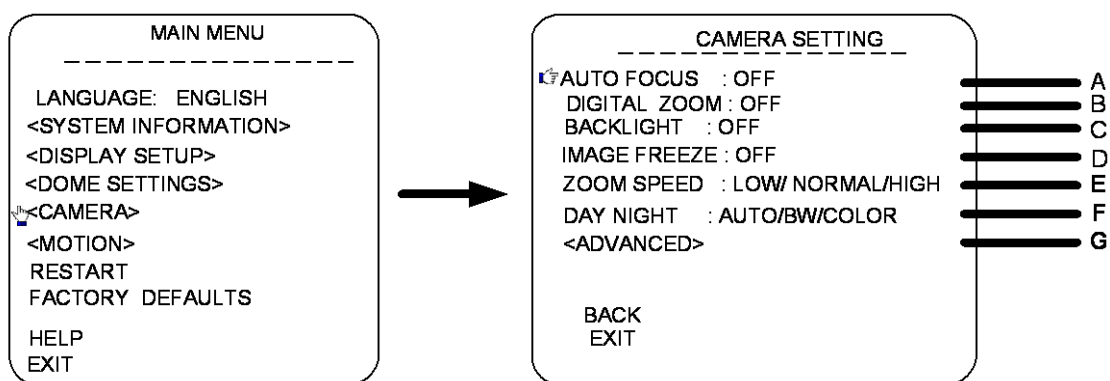
E1.MENU OFF TIME

The OSD menu will be automatically closed when there is not any operations for a certain period. The period could be 1/2/5/10 minutes.

F1. <NORTH SET>

Move to cursor to NOTTH SET and press IRIS ON to set the direction null point.

CAMERA

```
          MAIN MENU                         _____CAMERA SETTING___
      _ _ _ _ _ _ _ _ _ _ _ _           ☞AUTO FOCUS   : OFF                    A
                                           DIGITAL ZOOM : OFF                   B
     LANGUAGE:  ENGLISH                     BACKLIGHT    : OFF                  C
     <SYSTEM INFORMATION>                   IMAGE FREEZE : OFF                  D
     <DISPLAY SETUP>                        ZOOM SPEED   : LOW/ NORMAL/HIGH     E
     <DOME SETTINGS>                        DAY NIGHT    : AUTO/BW/COLOR        F
     <CAMERA>                               <ADVANCED>                         G
     <MOTION>
     RESTART
     FACTORY  DEFAULTS                      BACK
                                              EXIT
     HELP
     EXIT
```

A.AUTO FOCUS
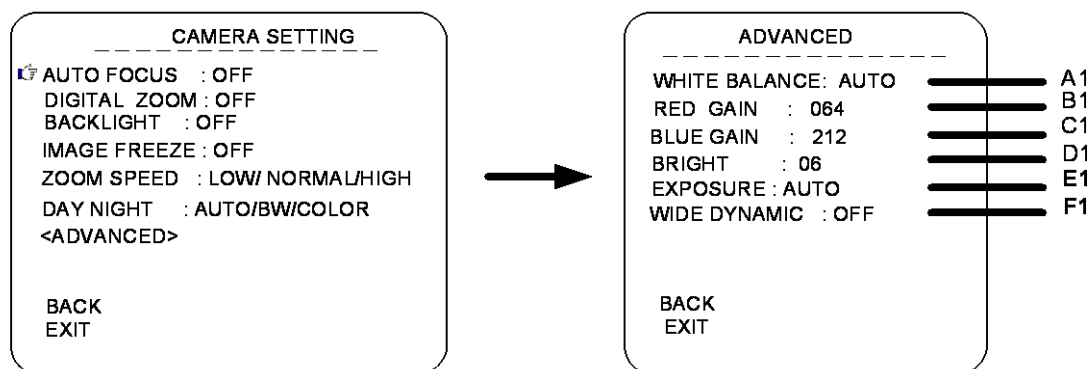
B.DIGITAL ZOOM

C.BACKLIGHT

When the light is dim, please open the backlight compensation to make the image bright

D.IMAGE FREEZE

E.ZOOM SPEED: LOW/NORMAL/HIGH

F.DAY NIGHT:AUTO/BW/COLOR

G. <ADVANCED>

A1. WHITE BALANCE:AUTO/MANUAL/INDOOR/OUTDOOR

B1. RED GAIN

C1. BLUE GAIN

D1.BRIGHT

E1.EXPOSURE

F1.WIDE DYNAMIC

*NOTICE: This item is only for the camera module with WDR function.

Chapter7 Trouble Shooting

Problems	*Possible Reason*	*Solution*
Power on, no movement, no image, indicator light does not light	Power line connected wrong	Correct it
	Power damaged	Replace
	Blowout	Replace
	Power line be connected bad	Check it
Power on, self check, has image, can't control, indicator light does not flicker	The machine's address code or baud rate is wrong	Reset
	Protocol wrong	Correct it
	RS485 bus be connected wrong	Check it
Image is dim	Focus in manual state	Clean it
	Dome is dirty	Change a certified power supply
Fan does not rotate	Fan is connected wrong	Check it